217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - NSPS SOURCE - REVISED PERMITTEE

City of Chicago - Department of Water

Attn: Mr. Conrad Bazylewski Western Avenue Pumping Station

1000 East Ohio Street Chicago, Illinois 60611

<u>Application No.</u>: 97030153 <u>I.D. No.</u>: 031600AXJ

Applicant's Designation: Date Received: November 4, 2002

Subject: Water Pumping Station

Location: 4933 South Western Avenue, Chicago

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of one 69.0 mmBtu/hr and four 46.4 mmBtu/hr natural gas-fired boilers with fuel oil #2 as back-up pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., less than 100 tons/year for NO_x and SO_2), as further described in Attachment A. As a result, the source is excluded from requirements to obtain a Clean Air Act Permit Program (CAAPP) permit.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permit(s) for this location.
- 2a. Emissions and operation of the five boilers (combined) when fired by natural gas shall not exceed the following limits:

Natural Gas Usage (mmscf/Month) (mmscf/Year) 66 666

| | Emission Factor | Emis | sions |
|---------------------------|-----------------|-----------|-----------|
| <u>Pollutant</u> | (Lb/mmscf) | (Tons/Mo) | (Tons/Yr) |
| | | | |
| Nitrogen Oxides | 100 | 3.4 | 33.3 |
| Carbon Monoxide | 84 | 2.8 | 28.0 |
| Particulate Matter | 7.6 | 0.3 | 2.6 |
| Volatile Organic Material | 5.5 | 0.2 | 1.9 |
| Sulfur Dioxide | 0.6 | 0.1 | 0.2 |
| | Totals | 6.8 | 66.0 |

These limits are based on maximum natural gas usage and standard AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

b. Emissions and operation of the five boilers (combined) when fired by fuel oil shall not exceed the following limits:

| (Gallons/Month) | Fuel Oil Usage | (Gallons/Year) |
|-----------------|----------------|-----------------|
| 79 , 790 | | 79 , 790 |

| | Emission Factor | Emissions | |
|--------------------|-----------------|-----------|-----------|
| Pollutant | (Lb/1000 Gal) | (Tons/Mo) | (Tons/Yr) |
| | | | |
| Sulfur Dioxide | 39.76 | 1.6 | 1.6 |
| Nitrogen Oxides | 20.00 | 0.8 | 0.8 |
| Carbon Monoxide | 5.00 | 0.2 | 0.2 |
| Particulate Matter | 2.00 | 0.1 | 0.1 |
| | Totals | 2.7 | 2.7 |

These limits are based on maximum fuel oil usage, maximum sulfur content (0.28% by weight), and standard AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

- 3. The New Source Performance Standard for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Db, applies to units constructed, reconstructed, or modified after June 19, 1984. This rule applies only to 69.0 mmBtu/hr boiler.
- 4a. At the above location, the Permittee shall not keep, store, or utilize a distillate fuel oil (Grades No. 1 and 2) with a sulfur content than the larger of the following two values:
 - i. 0.28 weight percent, or
 - ii. The wt. percent given by the formula: Maximum wt. percent sulfur = (0.00005) x (Gross heating value of the oil in Btu/lb).
- b. Organic liquid by-products or waste materials shall not be used at the source without written approval from the Illinois EPA.
- c. The Illinois EPA shall be allowed to sample all fuels stored at the above location.
- d. The Permittee shall notify the Illinois EPA prior to any change in the type of fuel used at the source.
- 5. The Permittee shall maintain monthly records of the following items:
 - a. Total natural gas usage (mmscf/month and mmscf/year);

- b. Distillate fuel oil #2 usage (gal/month and gal/year); and
- c. Sulfur content for the fuel oil #2 (wt %).
- 6. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
- 7. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
- 8a. The Permittee shall submit the following additional information from the prior calendar year, along with the Annual Emissions Report, due May 1st of each year:
 - i. Total natural gas usage (mmscf/year).
 - ii. Distillate fuel oil #2 usage (gal/year).
- b. If there have been no exceedances during the prior calendar year, the Annual Emission Report shall include a statement to that effect.
- 9. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency Division of Air Pollution Control Compliance Section (#40) 1340 North Ninth Street P.O. Box 19276 Springfield, Illinois 62794-9276

<u>and</u> one (1) copy shall be sent to the Agency's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency Division of Air Pollution Control - Regional Office 9511 West Harrison Des Plaines, Illinois 60016

Page 4

It should be noted that the fuel oil storage tanks are exempt from state permit requirements, pursuant to $35 \, \text{Ill. Adm. Code} \, 201.146 \, \text{(n)} \, \text{(3)}$.

It should be noted that this permit has been revised to incorporate operation of one 69.0 mmBtu/hr boiler, as specified in Construction Permit 02110004, with a negligible increase in facility wide emissions (only SO_2 emissions increase by 0.1 tons/yr).

If you have any questions on this, please call Jim Kallmeyer at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:JDK:jar

cc: Illinois EPA, FOS Region 1

Illinois EPA, Compliance Section

Lotus Notes

Attachment A

This attachment provides a summary of the maximum emission from the pumping station operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a facility. The total distillate fuel oil #2 and natural gas usage are limited the potential to emit of NO_x and SO_2 below major source thresholds. The resulting maximum emissions are below the levels, e.g., 100 tons per year of NO_x and SO_2 , at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that material is handled, and control measures are more effective than required in this permit.

1a. Emissions and operation of the five boilers (combined) when fired by natural gas shall not exceed the following limits:

| | Natural | Gas | Usage | |
|---------------|---------|-----|-------|--------------|
| (mmscf/Month) | | | | (mmscf/Year) |
| | | | | |
| 66 | | | | 666 |

| | Emission Factor | Emissions | |
|---------------------------|-----------------|-----------|-----------|
| Pollutant | (Lb/mmscf) | (Tons/Mo) | (Tons/Yr) |
| Nitrogen Oxides | 100 | 3.4 | 33.3 |
| Carbon Monoxide | 84 | 2.8 | 28.0 |
| Particulate Matter | 7.6 | 0.3 | 2.6 |
| Volatile Organic Material | 5.5 | 0.2 | 1.9 |
| Sulfur Dioxide | 0.6 | 0.1 | 0.2 |
| | Totals | 6.8 | 66.0 |

These limits are based on maximum natural gas usage and standard AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

b. Emissions and operation of the five boilers (combined) when fired by fuel oil shall not exceed the following limits:

| | Fuel Oil Usage | |
|-----------------|----------------|-----------------|
| (Gallons/Month) | | (Gallons/Year) |
| 70 700 | | 70 700 |
| 79 , 790 | | 79 , 790 |

| | Emission Factor | Emissions | |
|--------------------|-----------------|-----------|-----------|
| Pollutant | (Lb/1000 Gal) | (Tons/Mo) | (Tons/Yr) |
| | | | |
| Sulfur Dioxide | 39.76 | 1.6 | 1.6 |
| Nitrogen Oxides | 20.00 | 0.8 | 0.8 |
| Carbon Monoxide | 5.00 | 0.2 | 0.2 |
| Particulate Matter | 2.00 | 0.1 | 0.1 |
| | Totals | 2.7 | 2.7 |

Page 2

These limits are based on maximum fuel oil usage, maximum sulfur content (0.28% by weight), and standard AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

JDK:jar